

Claim Listing:

1. (Previously Presented) A medical imaging apparatus, comprising:

a CT imaging device for obtaining one or more tomographic images of a subject patient, the CT imaging device having a first housing which defines a bore through which the patient axially translates during formation of one or more images by the device;

a nuclear camera imaging device for obtaining one or more tomographic images of the subject patient, nuclear camera imaging device having a second housing which defines a bore through which a patient axially translates during formation of the images by the device, which first and second housings are selectably securable in a fixed abutting position to one another during the formation of one or more images of the subject patient, in which fixed position the bore of each device is substantially aligned axially with the bore of the other; and

when the first and second housings are secured in a fixed abutting position to one another, the bores of the CT and nuclear camera imaging devices are spaced apart by a distance sufficient to allow direct access by a caregiver to a portion of the subject patient which is positioned between the first and second bores, the spacing between the bores is free of obstructions in a region above the subject patient.

2. (Previously Presented) An imaging apparatus having an imaging axis, comprising:

separable first and second imaging devices for obtaining one or more images of a patient, wherein the patient is substantially aligned with the imaging axis;

a first housing which houses the first imaging device and defines a first bore; and

a second housing which houses the second imaging device and defines a second bore;

projecting engageable securement structures which extend from at least one of the first housing and the second housing to fixedly attach the first and second imaging devices in positions abutting each other and fixed relative to the imaging axis; and

an opening formed between the first and second bores when the first and second housings are abutting through which opening a caregiver can have line-of-sight visual

contact with the patient that is aligned with the imaging axis and extends between the first and second imaging devices.

3. (Previously Presented) A medical imaging apparatus, comprising:

- a first tomographic medical imaging device having an opening for receipt of a subject patient;

- a second tomographic medical imaging device having an opening for receipt of the subject patient;

- a patient support structure extending through the openings of the first and second imaging devices during the formation of one or more images by at least one of the imaging devices;

- an imaging device support structure securing the openings of the first and second imaging devices in a fixed spatial relationship in alignment with an imaging axis during the formation of one or more tomographic images, by at least one of the imaging devices, of the subject patient;

- which imaging device support structure forms a patient access area between the first and second imaging devices through which a caregiver can directly observe the subject patient between the openings of the first and second imaging devices; and

- an arcuate surface which is formed as a portion of a housing of either the first or second medical imaging device and positioned between the first and second imaging devices underneath the patient support structure when the imaging devices are secured together.

4. (Original) The medical imaging apparatus of Claim 3, wherein the patient access area allows direct tactile contact between a caregiver and the subject patient.

5. (Original) The medical imaging apparatus of Claim 3, wherein the patient access area allows a caregiver to perform one or more interventional applications on the subject patient between the first and second imaging devices.

6. (Original) The medical imaging apparatus of Claim 5, wherein the patient access area allows a caregiver to perform at least a portion of a biopsy procedure on the subject patient.

7. (Original) The medical imaging apparatus of Claim 3, wherein the first imaging device comprises one of a group consisting of CT, MRI, X-Ray, and Ultrasound devices.

8. (Previously Presented) The medical imaging apparatus of Claim 7, wherein the second imaging device comprises one of a group consisting of SPECT and PET devices.

9. (Original) The medical imaging apparatus of Claim 3, wherein the axes of openings of the first and second imaging devices are substantially aligned.

10. (Original) A medical imaging apparatus, including:

- a first medical imaging device having a first bore;
- a second medical imaging device having a second bore;
- a patient support structure which supports a subject patient during imaging; and
- a support structure for securing the first and second bores in a fixed spatial relationship, which support structure forms a patient access area between the first and second imaging devices and includes:

- a fluid control surface positioned beneath the patient support structure and between the first and second imaging devices for directing liquids falling onto the surface from the vicinity of the patient support structure away from the subject patient.

11. (Previously Presented) A medical imaging apparatus, comprising:

- a housing having a first scanner and a second scanner, each scanner having a bore for obtaining tomographic imaging information from at least a portion of a patient, which housing positions each of the first and second scanner bores in fixed positions apart from the other during scanning operations and forms a patient access area between the first and second scanners bores to allow direct access by a caregiver to the patient extending

through the first scanner bore and at least partially positioned between the first and second scanners; and

a substantially continuous arcuate surface which is formed from a portion of said housing in an axial direction, which arcuate surface has a peak located underneath the patient and extends outwardly and downwardly from the peak and toward lateral sides of the housing.

12. (Original) The medical imaging apparatus of Claim 11, wherein the bores of the first and second scanners have axes that are substantially aligned.

13. (Original) The medical imaging apparatus of Claim 11, further comprising a patient support means for supporting and positioning first and second portions of a patient simultaneously within the bores of the first and second scanners, respectively, and for supporting and positioning a third portion of the patient between the bores and accessible to a caregiver through the patient access area.

14. (Original) The medical imaging apparatus of Claim 11, wherein the first and second scanners are adapted to operate in different modalities with respect to each other.

15. (Original) The medical imaging apparatus of Claim 14, wherein one of the first and second scanners is adapted to obtain imaging information representing anatomical structures of the patient.

16. (Previously Presented) The medical imaging apparatus of Claim 15, wherein one of the first and second scanners is adapted to obtain imaging information representing physiologic functions of the patient.

17. (Previously Presented) A medical imaging method, comprising:

providing a housing having a first scanner and a second scanner, each scanner having a bore for obtaining tomographic imaging information from at least a portion of a patient;

positioning each of the first and second scanner bores in fixed positions apart from the other during scanning operations;

forming a patient access area in said housing between the first and second scanners bores to allow direct access by a caregiver to a patient extending through the first scanner bore and at least partially positioned between the first and second scanners to allow direct access to the patient by a caregiver through the patient access area formed between the first and second scanners; and

defining a lower end of the patient access area with an arced surface underneath the patient.

18. (Original) The medical imaging method of Claim 17, further comprising operating the first and second scanners in different modalities with respect to each other to obtain imaging information from the patient.

19. (Original) The medical imaging method of Claim 18, further comprising operating one of the first and second scanners in a modality obtaining imaging information representing anatomical structures of the patient.

20. (Cancelled)

21. (Previously Presented) The medical imaging apparatus of Claim 19, further comprising operating one of the first and second scanners in a modality obtaining imaging information representing physiologic functions of the patient.

22. (Original) A medical imaging apparatus, comprising:

a first scanning device for obtaining imaging information from a patient when the patient is disposed in a scanning position;

a housing which houses the first scanning device, the housing defining a drainage surface disposed below at least a portion of a patient support surface, when the patient is in the scanning position, which drainage surface slopes downwardly and away from the

patient to drain fluids falling to the surface from the vicinity of the patient, when the patient is in the scanning position.

23. (Cancelled)

24. (Previously Presented) The medical imaging apparatus of Claim 22, wherein the drainage surface extends outwardly and downwardly from opposite sides of the patient, when the patient is in the scanning position.

25. (Previously Presented) The medical imaging apparatus of Claim 24, wherein the drainage surface comprises an upwardly arced surface immediately below a patient, when the patient is in the scanning position.

26. (Previously Presented) The medical imaging apparatus of Claim 22, further comprising:

a second scanning device; and

wherein the drainage surface extends between and separates the first and second scanning devices to form an access area for a caregiver to access the patient disposed in the scanning position.

27. (Original) The medical imaging apparatus of Claim 26, further comprising:

a housing supporting the first and second scanning devices and forming at least a portion of the drainage surface area between the first and second scanning devices.

28. (Previously Presented) The medical imaging apparatus of Claim 27, wherein the drainage surface extends outwardly and downwardly from opposite sides of the patient, when the patient is in the scanning position.

29. (Previously Presented) The medical imaging apparatus of Claim 28, wherein the drainage surface comprises:

an upwardly arced surface immediately below a patient, when the patient is in the scanning position.

30. (Previously Presented) A medical imaging apparatus, comprising:

a first imaging device for obtaining one or more anatomical tomographic images of a subject patient, the first imaging device having a first housing which defines a first imaging region therein; and

a second imaging device for obtaining one or more functional tomographic images of the subject patient, the second imaging device having a second housing which defines a second imaging region therein;

wherein the first and second housings are selectably securable in a fixed abutting position to one another; and

when the first and second housings are secured in a fixed abutting position to one another, the first and second imaging regions are spaced apart by a distance sufficient to allow access to the subject patient.

31. (Previously Presented) The medical imaging apparatus for claim 30 further comprising a fluid drainage surface defined as a portion of the first or second housing.